BBR
11/22/87 46910-1

October 1987
Volume 44, Number 5

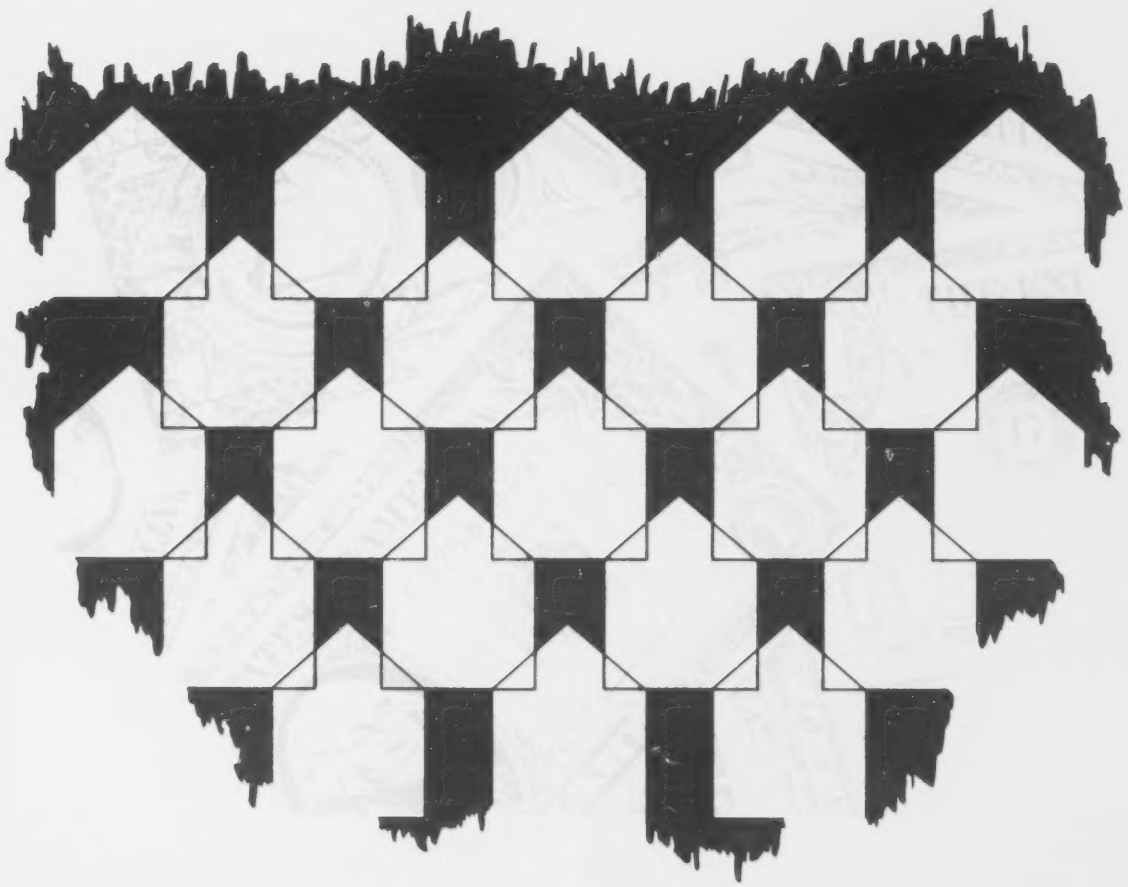
Illinois Business Review

Bureau of Economic and Business Research
College of Commerce and Business Administration
University of Illinois at Urbana-Champaign

The Secondary Mortgage Market / 2

Development in Southern Illinois / 6

Economic Growth in the 1980s / 10



October 1987 **Illinois Business Review** Volume 44 Number 5

Bureau of Economic and Business Research
University of Illinois, 428 Commerce West
1206 South Sixth Street, Champaign, Illinois 61820

Director, Robert W. Resek; *Acting Director*, Marvin Frankel; *Editor*, William R. Bryan; *Technical Editor*, Janet R. Fitch; *Designers*, Ronald Sterkel, Rajene Fry, and Ami Weiss; *Research Assistants*, Paul C. Bishop, Gregory A. Gilbert, Martin Dwyer, Mary A. Laschober, and Anne E. Winkler; *Director of the Office of Real Estate Research*, James R. Follain.

The material appearing in the *Illinois Business Review* is derived from various primary sources and compiled by the Bureau of Economic and Business Research. Its chief purpose is to provide businessmen of the state and other interested persons with current information on business conditions.
Signed articles represent the personal views of the authors and not necessarily those of the University or the College of Commerce.
The *Review* will be sent free upon request. Second-class postage paid at Urbana, Illinois.

Postmaster: Send address changes to Bureau of Economic and Business Research, 428 Commerce West, 1206 South Sixth Street, Champaign, IL 61820.

(ISSN 0019-1922)
published bimonthly

JAMES R. FOLLAIN

The US Secondary Mortgage Market: Born in a Regulated Environment but Flourishing in a Competitive One

The secondary mortgage market in the United States began in the 1930s with the creation of the Federal National Mortgage Association (FNMA). A restructuring of FNMA in 1968, the creation of the Government National Mortgage Association (GNMA) in 1968, and the establishment of the Federal Home Loan Mortgage Corporation (Freddie Mac) in 1970 are also important dates in the history of the secondary mortgage market in the United States. Since a somewhat modest beginning, the secondary mortgage market has evolved into a large and sophisticated enterprise. The amount of new mortgage-backed securities issued in 1986 exceeded the total amount outstanding at the end of 1983, and the total dollar volume of mortgage-backed securities traded in 1986 nearly surpassed 3 trillion dollars—an amount in excess of the dollar volume of equities traded in the major American stock exchanges.

Three main reasons were usually cited as the basis for the creation of an secondary mortgage market in the United States:

(1) The secondary mortgage market improves the geographic match between the demand for mortgages and the supply of household deposits. The market allows areas with excess deposits to purchase mortgages from areas with an excess demand for mortgages.

(2) An opportunity for the federal government to manage the housing cycle better. Throughout the 1960s and 1970s many argued that the regulations on financial institutions that limited the interest that lenders could pay for savings (Reg Q) resulted in unnecessary volatility of the business cycle. As market interest rates rose above ceiling rates, savers withdrew funds from the traditional suppliers of mortgage funds—the savings and loan associations (S&Ls)—thus reducing the supply of mortgage credit and bringing housing construction to a sudden halt. The secondary mortgage market was able to reduce some of this cyclicality in housing by purchasing more mortgages during periods of high rates of interest, thus increasing the supply of mortgage credit.

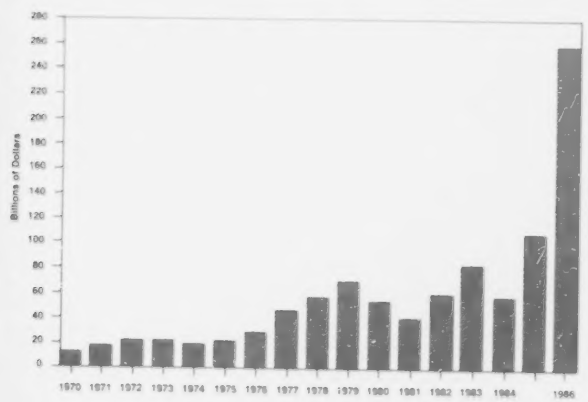
(3) The secondary mortgage market provides an opportunity for lenders to reduce their interest rate risk. A portfolio of fixed-rate mortgages and short-run liabilities can be quite sensitive to changes in the level of interest rates. The secondary mortgage market reduces some of this risk in that it allows lenders to reduce their holdings of fixed-rate mortgages by selling them in the market. This is a relatively new benefit

brought about by the increased volatility of interest rates in the 1970s and 1980s. Other reasons have been cited [7], but these three were the most important.

A common thread among the three factors is the regulation of Savings and Loans in the United States. With the deregulation of the S&L industry, one might have thought—and many did—that the growth in the secondary mortgage market would decline. Deregulation brought with it the end of regulated deposit rates, a move to national banking and the end of geographical segmentation, and the authority to issue new types of mortgages less sensitive to interest rate risk, that is, the adjustable-rate mortgage. Surprisingly, perhaps, these changes did not slow the growth in the secondary mortgage market. Indeed, since deregulation began in 1981, the growth has been greater than at any other time in the history of the secondary mortgage market.

The growth in the issuance of mortgage-backed securities is depicted in the chart. About $14 billion in mortgage-backed securities were issued in 1970, and this amount rose to over $71.9 billion in 1979. The share of these instruments secured by conventional mortgages also grew substantially. As large as this growth was, it was modest in comparison to the growth during the 1980s, especially 1986 [6]. The issuance of mortgage-backed securities in 1986 equalled approximately $262.3 billion, more than the total amount of mortgage-backed debt outstanding at the end of 1983, though some of this growth was due to the inflation of housing prices. Also, 1986 was marked by the greatest surge in refinancing ever and a restructuring of FNMA's portfolio—less buy-and-hold and more mortgage-backed securities. Thus, the 1986 growth in the secondary mortgage market per se is overstated. However, a good portion is directly linked to the long-run growth of the secondary mortgage market.

Volume of Mortgage-Backed Securities Issued from 1970–1986



The purpose of this article is to focus upon the question of why growth has been so substantial in the recent past. It is argued that the original basis for a secondary mortgage market was largely unique to the US financial system and that the secondary mortgage market did not represent a desirable aspect of a thoroughly modern financial system. It was simply a way of improving the workings of a highly regulated system during periods of volatile interest rates. This is not so of the growth since deregulation. It appears now that the cost of raising funds for mortgages via the secondary mortgage market in a deregulated environment marked by volatile interest rates and blessed with computer technology is likely to be comparable to, and possibly less than, the cost of raising funds by traditional methods—that is, household deposits. The growth in the secondary mortgage markets suggests that any differential that may have existed has certainly narrowed. Some of the factors that have produced a decline in the cost of raising funds in the capital market and an increase in the cost of raising funds via traditional methods are explored here.

Reasons for the Recent Rise in the Secondary Mortgage Market

For years S&Ls enjoyed a variety of benefits that guaranteed that they would be the lowest-cost producer of mortgages. These included preferential tax treatment, regulated deposit rates that helped S&Ls at the expense of banks, regulated markets that limited nationwide banking and, most important, deposit insurance. FNMA, Freddie Mac, and GNMA also had an advantage relative to private conduits in that they had the benefit of a federal guarantee. Most observers felt that in the 1970s the advantages to the S&Ls outweighed the advantages to the three main issuers of mortgage-based securities. However, recent changes in technology, the economic environment, and the regulatory structure have reduced, and possibly eliminated, the advantage of the S&Ls over the competition in the secondary mortgage market.

A number of factors are responsible for the reduction in the advantage of the S&Ls. Some have served to reduce the cost of funds to the secondary mortgage market. These include: computer technology; standardization of the mortgage contract and process; a large increase in the demand for long-term financial assets by institutional investors; and an increase in the desire by a variety of financial institutions to restructure portfolios. Other factors, especially those related to deregulation of financial institutions, have increased the cost of funds to S&Ls, thus further reducing their comparative advantage.

Computer Technology

An interesting discussion of the actual and potential future impact of computer technology is presented by Kevin E. Villani [8]. In brief, he argues that computer technology offers substantial opportunities to the secondary mortgage market and that the future will see a rapid increase in its use. Ultimately, Villani believes, the computer will cut the average time from application to funding from six weeks to one week.

One area in which the computer will likely help the secondary mortgage market is mortgage origination. Several new firms have already been created that allow consumers to shop via computer for the cheapest mortgage, for example, Shelternet. So far, it appears they have met with only limited success. It seems that consumers are not quite ready to forsake the personal touch offered by the traditional system. However, as consumers become more familiar with computers, they should become comfortable with a computer search of a mortgage menu.

Another area already affected by computer technology is the transmittal of loan data between lenders and the organizations purchasing the mortgages. MIDANET—Freddie Mac's Mortgage Information Direct Access Network—"eliminates the two most time consuming steps in an secondary mortgage market transaction: the transfer of data from a lender's computer onto paper and the subsequent transfer of the data from paper back to the computer at Freddie Mac" [8].

A third area in which the computer will help the secondary mortgage market involves the trading of securities, not just whole loans. One particular problem in this area is that some transactions fail because of improper paperwork. To reduce this problem, Freddie Mac has developed a book-entry system in which the Federal Reserve Bank of New York serves as a registrar. This will eliminate some paperwork, the need for couriers, and float. FNMA and GNMA are developing similar systems [3].

It should be noted that the impact of computer technology to date has been a little slower and different from what some expected. For example, many agree that the computer-based search for mortgages has not yet grown to some initial expectations. Also, Warren Lasko of the Mortgage Bankers Association points out that many believed computer technology would lead to a greater concentration of loan servicing firms than has occurred. Despite the fact that computer technology has not transformed the industry as fast as some expected, its introduction has almost certainly tipped the scales away from the traditional S&L approach, which is based upon face-to-face contact and extensive "bricks and mortar."

Standardization of the Mortgage Process

One of the difficulties in the marketing of mortgages is the uncertainty on the part of the investor regarding the mortgage being purchased. Granted, the 30-year mortgage has been around for a long time, but there can be wide variations in the underwriting process and the kinds of supporting documents associated with the mortgage. Gradually, the three major institutions in the US have worked to standardize the underwriting and record-keeping process. FNMA and Freddie Mac now have widely accepted underwriting criteria, appraisal practices, and forms. These improvements have led to the standardization of the process surrounding the fixed-rate mortgage.

One example of the standardization process concerns the adjustable-rate mortgage. The introduction of the generic, adjustable-rate mortgage brought with it many different varieties. It became clear, however, that some standardization would be necessary, and the efforts of Freddie Mac would play a major role in the reduction of the number of adjustable-rate mortgages on the market from well over 100 to 5 or less. A similar result occurred in the private mortgage insurance industry. This industry is subject to a variety of state regulations; however, the dominance of the agencies in the secondary mortgage market has led to a more standard set of regulations for mortgage insurers. Indeed, some have called Freddie Mac the "de facto" regulator of this industry.

An Increase in the Demand for Long-Term Assets by Large Institutional Investors

The amount of funds available to large institutional investors has grown substantially in recent years. Part of this is due to demographic factors—baby-boomers are saving for retirement—and some is due to the fact that insurance companies as well as other types of investors have been able to attract a large volume of funds for investment. The complete set of factors underlying this growth is open to debate, but the fact of the growth is not.

One consequence of this growth is that institutional investors are willing to purchase long-term assets like mortgages to diversify their portfolios. In the words of Lewis S. Ranieri of Salomon Brothers, one of the people from Wall Street responsible for the growth of the secondary mortgage market, "the astounding growth of dollars for investment in the hands of portfolio managers of all types—pension funds, state and local retirement systems, insurance companies, bank trust departments and thrift institutions" led to the growth in the demand for assets that the secondary mortgage market was able to meet [1]. Not only did the secondary mortgage market satisfy this demand, it also produced a wide variety of adaptations of the traditional 30-year mortgage to make it considerably more attractive to the institutional investor. One example of this is the collateralized mortgage obligation.

Portfolio Restructuring

Portfolio restructuring refers to the actions taken by a portfolio manager to update the amount and composition of the portfolio assets. One motive underlying such restructuring is to ensure that the interest rate exposure of the portfolio's assets is in line with the interest rate exposure of its liabilities (that is, match the durations of a portfolio's assets and liabilities). Portfolio restructuring for this purpose is occurring more often because of the increased volatility of interest rates and the increased sophistication of financial economists and analysts. This restructuring increases the demand for assets that can be easily bought and sold. As a result, the demand for

mortgage-backed securities has increased relative to less liquid mortgage loans. Another consequence is the introduction of new derivatives of the mortgage-backed securities that cater to the diverse demands of pension fund managers. For example, STRIPS—mortgage pools in which the interest and principal payments are sold separately—produce two separate products: one for those who are looking for substantial protection from interest rate risk and another for those willing to accept substantial interest risk.

Another motive underlying portfolio restructuring is the desire to generate arbitrage profits. Arbitrage profits can be earned by purchasing assets that are undervalued and selling (go short) assets that are overvalued. If this is done and the opinions of the investor are correct, then profits can be made. It is quite common for the major brokerage houses to advertise their strategies for this type of arbitrage with mortgage-backed securities of different age, coupon, and so on. Such activities are beneficial to the health of the economy because they produce lower mortgage interest rates. They also ensure that capital flows into those sectors in which the returns are highest and, as a result, the marginal productivity of capital is greatest.

Deregulation

The Congress passed historic legislation in 1980 that deregulated the rates S&Ls could pay on their deposits. The pressure to do so came from many different quarters, including small savers who felt cheated by artificially low rates. The legislation led to an increase in the cost of funds to the S&Ls and reduced the advantage of S&Ls over other kinds of institutions making mortgage loans. It did not completely eliminate their advantage because S&Ls still had something nonfinancial institutions did not have—access to underpriced deposit insurance for deposits up to $100,000 through the Federal Savings and Loan Insurance Corporation (FSLIC).

The combination of higher deposit costs and relatively fixed returns on its long-term mortgage assets caused a serious squeeze for many S&Ls. Since then, many S&Ls have gone out of business. Others have speculated on very risky projects, some of which have gone sour. These failures have placed tremendous pressure on the FSLIC. According to very recent reports, the FSLIC has potential liabilities amounting to well over $20 billion and assets of less than $1 billion. The result is additional upward pressure on the cost of funds to the S&Ls because it increases the riskiness of deposits in such a system. Although the new banking bill passed in August will relieve some of this pressure, it is too early to tell if it is enough.

Conclusions

Implicit in this direction is the belief that the tide is swiftly changing so that the secondary mortgage market will soon be the dominant source of funds for long-term housing mortgages. This is a dramatic change from the traditional S&L system in which the mobilization and lending functions of the housing finance system were conducted by the same institution—the S&L. The future will no longer require that these functions be carried on by the same organization. Indeed, it is likely that the two functions will become increasingly separate in the future. S&Ls and mortgage bankers will probably specialize in origination, a process that is likely to become even more computerized. S&Ls may get more involved in nonstandardized segments of the market, such as development and joint ventures, thus becoming less housing oriented. Mobilization, on the other hand, will become increasingly the domain of the major federal agencies or the domain of the large private Wall Street brokerage firms who become expert in the issuance of real estate mortgage investment conduits. Although these developments will reduce the role of the S&Ls, they will also be likely to produce lower mortgage interest rates—something most participants in the housing market welcome enthusiastically.

References

1. "The Changing Face of Mortgage Banking," *Secondary Mortgage Market*, Vol. 2, No. 2, (Summer 1985), pp. 33–36.
2. "Mortgatrends: SMM Interviews Salomon Brothers' Lewis S. Ranieri," *Secondary Mortgage Market*, Vol. 2, No. 3, (Fall 1985), pp. 33–36.
3. Frederick J. Eggers and C. Duncan MacRae, "Clearing the Paper Blizzard," *Secondary Mortgage Market*, Vol. 4, No. 16 (Spring 1987), pp. 21–22.
4. Federal Home Loan Mortgage Corporation, *The Secondary Mortgage Market in Residential Mortgages*, Washington, D.C., 1983.
5. Federal Home Loan Mortgage Corporation, *Data Base, Secondary Mortgage Markets*, Washington, D.C., Summer 1986.
6. Kenneth T. Rosen, M.D. Youngblood, Judy Hustick, Robert E. Hopkins, and Jennifer Stepan, "Housing and Mortgage Market Review," Salomon Brothers, February 1987.
7. David F. Seiders, "The Future of Secondary Mortgage Markets: Economic Forces and Federal Policies," *Housing Finance Review*, Vol. 3, No. 3, (July 1984), pp. 319–48.
8. Kevin E. Villani, "Electrifying Trends in Housing Finance," *Secondary Mortgage Market*, Vol. 1, No. 4, (Winter 1984), pp. 23–32.

James R. Follain is the Director of the Office of Real Estate Research and Professor of Finance at the University of Illinois, Urbana-Champaign.

This is a revised version of an address to a conference on the Secondary Mortgage Market held in Bogota, Columbia, 18–20 February, 1987. Helpful comments were received from Bill Bryan and Michael Lea.

ORER Paper Series

Each issue of the *Illinois Business Review* contains an article dealing with some aspect of the real estate market. Most are based upon research projects sponsored by the Office of Real Estate Research (ORER). ORER-sponsored research is also published in the ORER Paper Series. Recent papers include:

Paper No.	Author/Title
28.	James Follain. The Interest Rate Differential Needed to Justify Refinancing a Home Mortgage.
29.	Hun Park and Anil Bera. Interest Rate Volatility, Basis Risk and Heteroscedasticity in Hedging Mortgages.
30.	James Follain, Terry Lutes, and David Meier. Why Do Some Real Estate Salespeople Earn More than Others?
31.	Salim Rashid and John Scott. A Study of Size, Tenure and Efficiency among Northern Illinois Farms.
32.	James Follain and Pat Hendershott. The Impact of the Senate Finance Committee's Plan for Tax Reform on Real Estate.
33.	Jan Brueckner and James Follain. The Rise and Fall of the ARM: An Econometric Analysis of Mortgage Choice.
34.	Roger Cannaday, Eugene Stunard, and Mark Sunderman. Testing for Assessment Uniformity: Chicago Condominiums.
35.	Pat Hendershott, James Follain, and David Ling. Real Estate and the Tax Reform Act of 1986.
36.	Jan Brueckner. Inflation and Housing Tenure Choice with Binding Liquidity Constraints.
37.	Peter Colwell and Hun Park. A Note on Seasonality and Size Effects: The Case of Real Estate Investment.
38.	Ronald Krumm and Nancy Miller. Household Savings, Homeownership, and Tenure Duration.
39.	Scott McKinney and Ann Schnare. Trends in Residential Segregation by Race: 1960–1980.
40.	Peter Colwell and Tim Scheu. Optimal Land Development.
41.	Hun Y. Park and Philip J. Rushing. A Note on REITS: A Contingent Claim Analysis.
42.	Mark A. Sunderman, Roger E. Cannaday, and Peter F. Colwell. Assumption Financing: Theory and An Empirical Test.
43.	Louis O. Scott. Do Prices Reflect Market Fundamentals in Real Estate Markets?
44.	Barbara J. Thomas and Barbara F. Reskin. Occupational Change and Sex Integration in Real Estate Sales Occupations.

ROGER BECK AND WILLIAM HERR

Are More Jobs the Answer to the Economic Development of Southern Illinois?

By most standards the economic situation in southern Illinois is anemic. Per capita income in recent years averaged about 20 percent lower than in the rest of the state. While the income gap between the region and the rest of the state narrowed in the 1970s, the income convergence stalled in the early 1980s. Moreover, unemployment levels in southern Illinois have averaged higher than in the rest of the state.

It is not surprising that programs to stimulate economic growth have been a high priority to the people of the region. The purpose of this article is to examine the economic performance of the region by industry for clues that may shed light on future prospects for growth of the region.

The data used for this analysis are prepared by the US Bureau of Economic Analysis (BEA), Regional Economic Measurement Division. The county data used to estimate employment and wages and salaries are largely obtained from reports made by firms covered by unemployment insurance. Adjustments are made by the BEA to these wages and salaries to reflect noncovered employment.

The Region's Competitive Position

An examination of the performance of the southern Illinois economy relative to the performance of the Illinois economy can be based on employment or wages and salaries. In this section we examine employment changes in 11 industrial groups between 1970 and 1984. For the 15-year period, employment in southern Illinois increased by 61,500 or 14 percent. Nearly two-thirds of this net increase occurred in firms and establishments classified as service industries. The service sector includes personal (for example, laundry and repair), business (for example, employment and data processing), recreation, health, and educational services. Smaller but substantial employment gains occurred in the mining, retail, and finance sectors. Significant declines occurred in manufacturing, farming, and transportation (Table 1).

In order to determine the region's competitive position, we estimated employment in southern Illinois assuming the region had the same industrial makeup and the same industry employment growth rates as the state as a whole. If the economic structure and growth rates had mirrored the state, employment would have grown by 48,900 (487,700 − 438,800) or only 11 percent. Thus the region's performance as

measured by employment was better than would have occurred if its employment experience had been the same as in the state as a whole. It created 12,600 more jobs (500,300 – 487,700) than could have been expected if it had performed in the same fashion as did each of the state's industries during this period. This difference is identified as the region's relative competitive position. In Table 1 it is shown as an index that was computed by dividing actual employment by expected employment in 1984.

If this performance could continue, it would, of course, be a hopeful sign for employment levels in southern Illinois compared to the state. However, the performance of the state's economy has not been particularly strong, especially in the latter years of the study period. Hence, the relative position of the region does not portend a strong regional growth rate in absolute terms.

Despite this caveat, there are a number of related questions that can be profitably explored if we are to understand the region's past economic growth and future potential. Some of these questions include: (1) Has the competitive position of the region changed through time? (2) Which industries within the region are most (least) competitive? (3) Where are the competitive industries located? and (4) Are the conclusions concerning the region the same if the region's competitiveness is based upon income instead of employment? Each of these questions is discussed in this article.

Relative Competitiveness of the Region's Industries

It is useful to compare actual employment changes in the region's industries to the change in employment that would have occurred if these industries had grown at the state's rate. Such a comparison yields insights concerning the relative competitiveness of the 11 industries. The index of relative competitiveness helps identify which industries account for the change in the region's competitiveness between 1970 and 1984. For example, during the period four of the eleven industries (wholesale, mining, construction, and finance) registered a positive competitive position of more than 5 percent. In contrast, three industries performed less well than the same industry for the state as a whole (Table 1). The weakest sectors were agricultural services, transportation, and service industries with indexes of 78, 84, and 98, respectively.

It may seem incongruous that the largest actual gain in regional employment occurred in the service industry, yet this sector showed a competitive disadvantage relative to the state. As it turns out, if the service sector in the region had grown at the same rate as in the state, employment in the sector would have been even larger. Specifically, it would have employed 1,700 more persons than it actually did. For the eight industries that have a relative competitiveness index of more than 100, actual employment increased more or declined less than occurred in employment in those industries in the state.

Changes in the Competitiveness of the Region through Time

We also examined the region's competitiveness for the five-year period, 1979–1984. The decade of the 1970s was generally one in which basic commodity-producing industries in Illinois were prosperous and growing. The natural resource sectors of farming and mining were especially strong. The manufacturing sector of the state's economy had grown in the early 1970s but by the latter years of the decade had stagnated and then declined, as was true of manufacturing in

Table 1. Employment in Southern Illinois by Industry, by Year and, by Expected Employment in 1984 (hundreds)

Industry	Actual Employment[a] 1970	1984	Change 1970–84	Expected Employment 1984[b]	Relative Competitiveness 1979–84[c]
Agricultural production	412	348	−64	344	101
Agricultural services	15	25	+10	32	78
Mining	116	260	+144	221	118
Construction	239	244	+5	227	107
Manufacturing	863	680	−183	655	104
Transportation and communications	277	226	−51	269	84
Wholesale trade	111	180	+69	140	129
Retail trade	674	812	+138	782	104
Finance, insurance, and real estate	158	263	+105	247	106
Services	689	1,092	+403	1,109	98
Government	834	873	+39	851	103
TOTAL	4,388	5,003	+615	4,877	103

[a]Sources: US Department of Commerce, BEA, Local Area Personal Income and Employment, County Summary Tables. [b]Assumes the region had the same industry mix and the same total employment growth rates as the state between 1970 and 1984. [c]Actual 1984 employment divided by 1984 expected employment.

other midwest states. After 1979, the natural resource industries weakened considerably, and the secular decline in manufacturing deepened. Illinois lost 260 thousand jobs in manufacturing between 1979 and 1984. Employment in these basic goods-producing industries account for 25 percent of the region's total employment. Trends in these base sectors were expected to have an impact on residentiary industries such as service, retailing, finance, and so on and, hence, could be expected to affect the region's competitiveness.

Total employment in southern Illinois increased by 2 percent between 1970 and 1984. As before, we estimated employment growth in southern Illinois assuming the region had the same industry makeup and the same industry growth rates in this period as occurred for the state. Under this assumption employment in southern Illinois would have increased somewhat more than was actually observed. Thus, the competitive advantage observed over the long period, 1970–1984, disappeared in the 1979–1984 period (Table 2). In the latter period the region's competitive loss was about 6,400 jobs for a relative loss of 1 percent.

The relative competitiveness of the region's industries was somewhat different in 1979–1984 from that observed during the entire 15 year period. From 1979 to 1984, when the overall competitiveness of the region disappeared, only two (mining and manufacturing) of the eleven industries registered competitive position vis-à-vis the state, of 5 percent or more. The favorable competitive position of manufacturing occurred even though actual employment declined by 16,100 between 1979 and 1984. Had the sector's employment performance been the same as that of the state as a whole, employment would have declined even more.

Even though these two competitive strong sectors—mining and manufacturing—accounted for less than one-fifth of the region's total employment in 1984, performance in these basc industries can be expected to have a multiple effect on the region's overall economy. This may account for the relatively favorable indexes of competitiveness for the construction, retail, and finance industries (Table 2).

Location of Industries Showing Relative Competitiveness in Southern Illinois

The southern Illinois counties posting the strongest competitive position between 1970–1984 were Effingham, Jackson, Jefferson, Monroe, Randolph, and Williamson. In these counties seven or more industries registered actual employment levels that were more than 5 percent above the expected level in those industries in the state. That is, those industries had employment levels in 1984 that were above levels that would have been expected had employment in the county's industry changed by the same rate as in the state. On the other hand, 10 counties had three or fewer industries registering employment levels of 5 percent or more above the expected level in those industries in the state. Seven of these counties were located in the southern portion of the region (see the map).

The Region's Competitiveness as Measured by Income

Alternatively, the region's relative competitiveness could be measured by income rather than employment. Perhaps the first thing to observe is that personal income per employee in southern Illinois averages less than 80 percent of the level received in the rest of the state. Income per employee in southern Illinois averaged lower in virtually all industries and for all three years except in mining (Table 3). In that industry, income per employee in 1979 and 1984 in southern Illinois averaged 12 and 25 percent, respectively, above the industry average for the rest of the state. Income per employee in the manufacturing and government sectors of southern Illinois, while below the rest of the state, ranked second and third behind mining in 1984. Income per employee in the agriculturally related groups of industries in southern Illinois was comparable to that industry's average compensation in the rest of the state in 1970 but in latter years turned unfavorable.

Sectors in which income per employee was especially low relative to the rest of the state included farming, wholesale trade, finance, and the service establishments. In 1984 income per employee in these southern Illinois industries averaged about two-thirds or less of the amount received by employees in these industries located elsewhere in the state.

Lower average income per employee in southern Illinois than in the rest of the state means that a given increase in employment in southern Illinois is not

Location of Industries Having a Relative Advantage in Southern Illinois

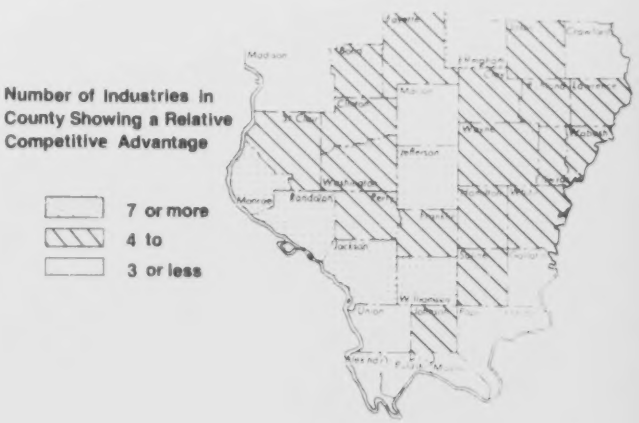


Table 2. Employment in Southern Illinois by Industry, by Year, and by Expected Employment in 1984 (hundreds)

Industry	Actual Employment[a] 1979	1984	Change 1979–84	Expected Employment 1984[b]	Relative Competitiveness 1979–84[c]
Agricultural production	410	348	−62	344	101
Agricultural services	19	25	+6	34	74
Mining	183	260	+77	241	108
Construction	243	244	+1	244	100
Manufacturing	841	680	−161	647	105
Transportation and communications	284	226	−58	246	92
Wholesale trade	132	180	+48	282	64
Retail trade	758	812	+54	803	101
Finance, insurance, and real estate	221	263	+42	257	102
Services	899	1,092	+193	1,110	98
Government	914	873	−41	859	102
TOTAL	4,904	5,003	99	5,067	99

[a]Sources: US Department of Commerce, BEA, Local Area Personal Income and Employment, County Summary Tables. [b]Assumes the region had the same industry mix and the same industry employment growth rates as the state between 1979 and 1984. [c]Actual 1984 employment divided by 1984 expected employment.

likely to have as much secondary impact on incomes as in the rest of the state. Thus, for example, if employment in base industries such as farming, mining, and manufacturing were to increase, even though secondary employment would likely increase, income in retail, service, and finance sectors would increase by smaller increments than would be likely to occur in other areas of the state. Based on this observation, we recalculated the region's competitiveness based on income shares rather than employment.

Table 3. Ratio of Income per Employee in Southern Illinois to the Rest of the State (in percent)

	1970	1979	1984
Agriculture production	35	54	37
Agricultural services	100	86	85
Mining	92	112	125
Construction	79	78	77
Manufacturing	88	95	94
Transportation and communications	86	85	79
Wholesale trade	74	74	68
Retail trade	85	86	83
Finance, insurance, and real estate	72	61	51
Services	67	67	65
Government	87	85	88
TOTAL	77	81	78

Sources: US Department of Commerce, BEA, Local Area Personal Income and Employment, County Summary Tables

We found that income in southern Illinois grew more than if the region's growth had been the same as income growth in the state between 1970 and 1984. The 3 percent faster growth, termed the region's competitive advantage, was the same as when the region's competitiveness was measured by employment. If we focus only on the latter five years of the period, we find the competitive advantage disappears. This is the same result as when we based our analysis on employment. Thus, the unit of measurement has no appreciable effect on our conclusions.

During the 1970–1984 period, seven industries registered a relative competitive advantage, whether this competitive advantage was based on employment or income. The real estate-finance industry showed a favorable competitive position when based on employment but an unfavorable competitive position relative to the state when based on income. The other three industries—agricultural services, transportation, and service—showed a weak competitive position whether this competitiveness was measured by employment or income.

In the 1979–1984 period when the region's competitiveness declined relative to the state, only three industries—mining, manufacturing, and government—showed a favorable competitive position using both measures. Four industries—agricultural services, transportation, wholesale, and service—showed a competitive disadvantage relative to the state using both measures.

Conclusions and Implications

Based on employment and income, the southern Illinois economy showed favorable growth in the 1970–1984 period relative to the rest of the state. However, in the 1979–1984 period this competitive edge disappeared. Strong competitive sectors, whether measured by employment or income, in the more recent period include mining, manufacturing, and government. These three sectors also have the highest average relative wages and salaries per person. We conclude that in the near term, developments in these three sectors will substantially affect the economic growth of the region.

The low average level of income per employee in southern Illinois relative to the rest of the state indicates that increasing employment, as important as that might be, might not lead to gains in economic welfare that many expect. While efforts to boost the region's employment must continue, especially in the three sectors identified as being most competitive, one should not lose sight of long-run benefits accruing from improving the skills and abilities of the labor force. Such a strategy improves the capabilities of the labor force and can help attract higher paying industries.

Roger Beck and William Herr are members of the Department of Agribusiness Economics at Southern Illinois University, Carbondale.

FOLKE DOVRING

By Faith and Credit: Economic Growth in the 1980s

Economic growth in the 1980s has been uneven and, on the whole, sluggish. This is the apparent outcome of economic policies that aimed at rapid growth and that have used deficit financing on a large scale to avoid high federal income taxes, which were expected to have a depressing effect on the economy. The federal budget deficit has parallels in two other deficits: a shortfall in export income over payments for imports and a continuing and worsening backlog of environmental disutilities. Analysis of the economic policy that has been followed since 1981 should consider all three deficits.

Growth of National Product and Employment

In the 1980s, the national product of the United States has grown at an apparent rate slightly below that prevailing since early in the century. Based on *Historical Statistics of the United States* up to 1960 and thereafter on recent issues of *Survey of Current Business*, the following are the compound rates for annual growth of real GNP, by sub-periods reflecting presidential terms: 1909–1952, 2.9 percent; 1953–1960, 2.7 percent; 1961–1968, 4.5 percent; 1969–1976, 2.3 percent; 1977–1980, 3.0 percent; and 1981–1986 2.4 percent.

In total, real GNP rose by over 40 percent in the 1961–1968 period, by just under 20 percent in the period 1969–1976, by nearly 13 percent during the 1977–1980 period, and by over 15 percent 1981–1986. Hence, by conventional criteria, the current administration has not done particularly well by the national economy. It is true that GNP statistics contain large difficulties of concept and measurement that are by no means resolved, so we should be cautious about concluding that the economy has slowed down. The contrast with the 1960s is, in any event, large enough that it must be real to some extent. The 1980s cannot on any tenable grounds be said to have done better than the sluggish growth of the 1970s.

Population growth is nearly 1 percent per year, hence the rate of improvement in per capita income in the 1980s has been barely 1 1/2 percent annually. With increasing inequality of income, large numbers of the poor and lower middle classes have actually become worse off in recent times.

Wage employment has increased at nearly the same rate as GNP, at least since 1968. The last six years have seen the employed civilian labor force increase by over

11 million, compared with 10 1/2 million in the preceding four years and almost 11 million in the eight years before that. Such increases reflect increasing participation of women in the labor force, and they also include the result of the increasing preponderance of service activities over goods production in the US economy. Wage employment in goods production fell by about 3/4 million in the last six years; it rose by over 2 million in the preceding four years and fell by less than half a million in the period from 1960 to 1976. Service occupations thus increased more than did total employment in 1981–1986 and in 1969–1976, but less so in 1977–1980. The subcategory "services" (without further description) represented half the employment increase 1981–1986 against much lesser fractions in the preceding periods.

Gross wages per hour or per week culminated in 1977–1978 and are now lower (in constant dollars) by 5 percent (hourly) or 10 percent (weekly); the difference between these reflects a decline in the length of the average work week. In part, the shortening in the average work week reflects the fact that there is substantial part-time employment in the services.

All of this deals with economic activity as encompassed by official statistics. The "second" or "underground" economy is not included. This exclusion may cloud the precise meaning of some of these data.

There has been much interest in the increasing preponderance of services in the US economy. This is more evident in current data than in those measured in money of constant purchasing power. In current terms, production of goods declined from over 46 percent of the national product in the late 1960s to only about 40 percent recently. In constant-term data, the change is less apparent. In such terms, goods and services matched closely from the late 1960s to the late 1970s, and only since 1980 has the service category begun to exceed goods production; in 1986, goods were worth 80 percent of the services in current terms and 90 percent in constant dollars.

Growth of the labor force nearly matching that in national product gives no indication of much change in productivity, a problematic concept I shall not try to explain here.

Investment and Saving

Before the 1980s, investment in the US economy was roughly in step with savings. In the 1980s the gap has widened. The following gives percentages of GNP, average per year:

	Gross	Gross Private	Therefore:	
	Investment	Savings	Personal	Other
1969–76	15.5	15.5	5.2	10.3
1977–80	16.3	16.0	4.0	12.0
1981–86	15.4	13.8	3.8	10.0

In the last three years, investment has averaged about 16 percent per year, against 14 percent in 1981–1983. Savings remained about the same percentage in both three-year periods. The last year, 1986, shows the lowest figure for savings, 12.6 percent in total and 2.8 percent personal savings.

The figures for the 1980s again present a somewhat weaker picture than the preceding periods, as regards savings. Investment differs less, despite the dip in the national product. Whatever may be said about the accounting difficulties, two things stand out: domestic savings have been insufficient to cover the demand for investment funds, and neither savings nor investment is in any way greater now than in earlier periods. This is contrary to what was expected from the economic policies begun in 1981.

The gap between investment and savings was presumably filled by foreign-owned funds coming in. The gap in foreign payments has increased every year, reaching nearly $150 billion in 1986. Over the five- to six-year period, there has been a $500 billion cumulative total.

The ostensibly conservative policy of the Reagan administration has the extraordinary feature of combining a sharp increase in defense spending with a lowering of the income tax. The budget deficit, which was a predictable consequence, was supposed to be filled by increased tax revenues stemming from vigorous economic growth stimulated by the tax reduction. Lower taxes would mean more savings. To that extent, the policy failed.

The expectation that larger disposable incomes would lead to higher rates of savings is widespread among economists. Indeed, some regard it as a leading tenet of economic theory. The failure of this theory to bear out in real life in the United States of the 1980s makes it necessary to reevaluate the assumptions about income and savings.

There are really two statements that must be discussed separately. First, savings are positively related to incomes; second, because of this, rising private incomes would lead to higher savings rates. This consequence should be more true if the rise in incomes, because of the tax changes in this case, led people with high incomes to retain a larger part of their incomes as disposable. Make the rich richer and savings will go up as a consequence, so the second statement says.

The first of the two statements is a trivial truth. Census after census bears it out, in country after country: the rich save a larger fraction of their incomes than do the poor or even the middle classes. The propensity to save, or the demand for savings if you will, is the reverse of Engel's Law. Expenditures for food and other necessities increase more slowly than other expenditures, leaving more to be saved or spent on luxuries. People in higher income brackets do indeed save more than people in lower income brackets, in a given country at a given time. This is a static truth.

But the second statement is a *non sequitur*. If it were true that more inequality of income always leads to higher savings rates, then the highest savings rate in the world would be found in Latin America. That region has the largest inequalities of income. But this is far from being so. Savings rates in Latin America are not particularly high. The expectation that larger disposable incomes, especially among higher incomes, would lead to higher savings rates was really without foundation. In the dynamic sense, the second statement is a fallacy.

How the propensity to save may react to changes in the level and distribution of income is not a matter on which economic theory can throw much light. Rather, we should look to socio-cultural explanations such as those proposed by Thorstein Veblen almost a century ago. Snob effect, status symbols, and other nonproductive ways of spending may indeed come into a different degree of prominence when the social and economic climate changes. In the case of the United States in the 1980s, it may be plausible to suggest that the general atmosphere of optimism encouraged by the current administration may have generated a lower sense of responsibility for the use of private money.

The Federal Budget Deficit

The federal government deficit is not necessarily comparable to a deficit in budgets at the state, local, or private levels. The reason is that the national government alone has the power to make new money and does so in more or less reasoned proportion to the need for more money as the economy expands. A recent analysis by T.M. Holloway in *Survey of Current Business* (March 1986) pointed to the relation between national debt and national product as the logical basis for evaluating federal budget policy. That proportion had been as high as over 55 percent in the mid 1950s and had since fallen almost continuously until the mid 1970s, when it stabilized at about 26–27 percent. Beginning in 1982, the percentage turned upward again and reached over 37 percent in the fourth quarter of 1985. According to Holloway, a falling percentage means that the budget is in a real sense over-balanced; only a rising percentage makes the budget under-balanced in a real sense. In 1981, the falling proportion of the national debt to the national product, he felt, contributed to the recession. By the same token, the boom in 1983 was set off by the rising deficit—a standard Keynesian remedy, and we have had only sluggish growth in 1985 and 1986. According to the Holloway analysis, a budget deficit of $48 billion would mean a balanced budget in real terms. Thus, if Gramm-Rudman fails to balance the budget in conventional terms, no great harm may follow. But if the deficits continue as large as they are, the result will be either recession or inflation, depending on which monetary solution is adopted.

The budget deficit would, in itself, have a stimulus effect on the economy because a large part of it is used by the military, a sector that responds to politico-administrative imperatives rather than market forces. It is of some interest to note the relation between defense expenditures for durable goods (mainly weapons and ships) to the deficit in external payments.

The Trade Deficit

The deficit in foreign merchandise trade is, above all, one of trade in durable goods. Over the years 1983–1986, the annual trade deficit has risen from $5 billion in 1983 to $149 billion in 1986, for a four-year total of $336 billion. In the same years, the total of durable-goods imports over exports of the same group of goods went from $29 billion in 1983 to $103 billion in 1986, totaling $271 billion in four years, or more than 80 percent of the trade deficit in those years. In 1986, the durable-goods deficit was 69 percent of the total trade deficit.

This commodity composition of the trade deficit is noteworthy because durable goods have been a weak subsector in the US economy in the 1980s, with a slower growth rate than all goods production. This weakness in the production of durable goods is related to the relatively weak performance in investment despite the influx of foreign funds into the US investment market. The 1986 net imports of durable goods represents 1/7 part of all civilian demand for such goods (for investment and consumption) and is somewhat larger than the federal government's purchases of durable goods for the Defense Department.

Such a weakness in durable goods production and trade is further evidence of the relative weakness of economic growth in the 1980s. With defense purchases in the range of 10–11 percent of all durable goods produced in the country, the sector has received considerable stimulus financed by the federal deficit. This stimulus should have extended to the willingness of the defense contracting industries to invest, given the often long-term nature of defense procurement contracts. It is plausible that without this deficit-financed expansion of defense procurements, growth in heavy industry would have been even weaker, and so would investment.

The increasing flow of foreign investments into the United States has also had the consequence of changing the sign of the national-account item called "factor income from abroad," which is now negative after having been positive for many years. This change renders the credit that the economy can take from its rate of growth one shade weaker.

The Deficit on Environmental Disutilites

The deficit in environmental quality is long standing. It exists and keeps mounting because we are enjoying many industrial products without paying the full cost of their production. Here, as in the case of petroleum and some other natural resources, we are "living off the capital" with insufficient provision for eventual replacement.

Only intermittently do the news media mention that current policy in Washington downplays environmental protection even more than was done in previous years. Toxic dumps are largely left unreclaimed, making the hazards more deepseated and the eventual cleanup more expensive. On acid rain, Canada calls for action, and the United States promises research. Large parts of the country have streams and ground water of impaired quality. The replacement in bottled water counts as an addition to national product without counting the negative entries of the water that became undrinkable. The southwestern quadrant of the United States keeps overusing scarce water, with creeping desertification as a consequence.

A pervasive thought underlying such a policy toward environmental degradation is the notion that the environment is somehow less important than marketable goods and services. We are often told that cleaning up the poison dumpsites cannot be done because "it costs too much." At the same time, expanding production of market goods and services is hailed as a good thing because it creates jobs and incomes.

It is an elementary fact of national accounting that anything that costs money also creates jobs and incomes, and vice versa. It is true that cleaning up dumpsites and reversing the consequences of acid rain costs money, but these activities also employ people and generate measurable additions to national product. And while the manufacturing of Cadillacs and cosmetics creates jobs and generates income, it also necessitates expenditures on the part of whoever is to use them. The two faces of national accounts, the product and the expenditure side, have to match; only temporarily can they diverge in a country that affords itself the luxury of a large deficit in foreign account.

The difference between market production and environmental protection is not in the concepts of costs and values, but in uses—for individual consumption or for collective consumption. Collective consumption is more difficult to visualize, essential as it may be. Pollution does not always come to the same people who enjoy the market production. Industrialists whose factories and power stations produce poison dumps and acid rain often can afford to live far away from the pollution. In contrast, those who live on a dump or under the acid rain may not be able to afford all the luxuries for the sake of which the pollution was generated. This difference in the incidence of pollution is one more point where economic inequality has been increasing in recent times.

Favoring current consumption at the expense of squandering long-term assets is a policy that caters to the short-sighted wishes of people whose horizons will only include the remote future if they are so educated. As current politics, the emphasis on market goods is the easy way out. The regime that takes a public stance that neglecting the overhead is all right will eventually have to answer for the consequences of leading public opinion in the wrong direction.

The deficit in overhead capital of environmental quality cannot be estimated in hard statistical terms. Intuitively, it seems certain that it is far greater than either the federal budget deficit or the foreign-trade deficit.

If matters such as poison dumpsites, acid rain, ground water quality, and desertification were to be addressed on a scale that would yield sizeable results, then one of two things would need to be done. Either income taxes would have to be raised or the federal budget deficit would need to become even larger.

Conclusions

Examining the record of six years of ostensibly conservative economic policy, the results are far from reassuring. The policy in place has emphasized faith in the government and the solidity of credit at both the fiscal and the national-account levels. The results are so far below what had been hoped for that they may well be more than balanced by the continuing deficit in overhead capital such as natural resources and environmental quality. The policy of the 1980s has not safely guarded the nation's future.

The general impression is of an economic system that may not be making any real progress in the total balance. This is rendered even more problematic by the signs of increasing economic inequality as evidenced by the data on part-time employment and falling weekly average wages. Lowering the standard of living of the poor is not just something that should offend the human heart. It also tends to impair the nation's human capital and to render it more difficult to mobilize all its resources.

Economic policy needs thorough reevaluation. We must avoid the mistake of relying on simplistic theory and the record of the past. There must be more attention to what really goes on in the economic system.

Folke Dovring, a former United Nations official, taught land economics and economic development in the University of Illinois Department of Agricultural Economics, 1960–1987. His writing on macro economic subjects include three recent books, Riches to Rags *(1984),* Land Economics *(1987), and* Productivity and Value *(1987).*

Illinois Business Indexes

Recessionary pressures continue to build in the Illinois economy. Since April, the composite leading indicator has followed a downward trend, indicating a slowdown in economic activity. As chart 1 shows, the three-month moving average (MA3) has been below the six-month moving average (MA6) for four consecutive months. Although timing of the actual downturn cannot be predicted, the composite leading indicator series has historically led the downturn by 7–14 months.

In contrast to the composite leading indicator series, individual indicators continue to send mixed signals about the health of the state's economy. Since April, the number of residential housing permits issued has consistently been below the number issued in 1986 (Chart 2). Also, the value of industrial buildings was 52 percent lower in July 1987 than in July 1987. In contrast, professional and mercantile buildings have shown marked increases over last year. Furthermore, as shown in Chart 3, real retail sales rebounded in June. For two Illinois industries, coal and petroleum, output levels remain below 1986 levels (Chart 4). In contrast, the manufacturing sector remains strong. Both employment and average weekly hours worked increased in July over a year ago. Also in July, the Chicago help wanted index was 16.5 percent higher than its year-earlier level, while the St. Louis help wanted index decreased.

Inflation has continued at a modest rate. The July 1986–July 1987 change in the CPI for the north central US was 3.58 percent—down from May's yearly rate of 3.78 percent but higher than the 1986 rate of 0.8 percent. Two trends continue: growth in manufacturing earnings has kept pace with inflation (Chart 5) and St. Louis inflation has remained below Chicago's (Chart 6).

ILLINOIS BUSINESS INDEXES

	Percent Change July 1986–July 1987	*July 1987*	*June 1987*	*May 1987*	*April 1987*	*July 1986*	*June 1986*
Leading Indicator (MA3)	4.02[a]	10.38	11.49	10.67	12.13	6.36	7.67
Leading Indicator (MA6)	6.70[a]	11.19	12.55	12.50	13.27	4.49	4.67
Employment-manufacturing (in thousands)[b]	0.86	930.3	929	927.5	926.6	922.4	923.9
Average weekly hours-manufacturing[b]	2.48	41.4	41.8	41.4	41.2	40.4	41.0
Weekly earnings-manufacturing[b]	4.20	$450.85	$454.78	$449.60	$447.43	$432.68	$438.29
Help wanted advertising-Chicago (1969 = 100)[c]	16.50	120	120	111	105	103	101
Help wanted advertising-St. Louis (1969 = 100)[c]	−1.54	64	68	63	63	65	70
Retail sales (in millions)[d]	−3.57	$5,532	$6,163	$6,184	$6,082	$5,737	$5,736
Coal production (in thousands of tons)	−6.13	3088	4,979	4,664	5,457	4,355	5,325
Petroleum products (in thousands of barrels)[b]	−9.42	2030	1,980	1,990	2,000	2,241	2,201
Vendor performance[e]	14.81	62%	57%	60%	57%	54.0%	50.0%
Building permits (in thousands)							
Residential housing units	−10.38	4.474	5,101	5,095	4,624	4,992	5,141
Value of residential housing	−0.81	$342,356	$391,383	$361,550	$384,791	$345,144	$320,542
Value of nonresidential construction							
Industrial buildings	−51.79	$17,697	$26,543	$28,477	$37,927	$36,706	$27,825
Office, banks, and professional buildings	25.07	$41,298	$66,837	$40,327	$46,810	$33,019	$38,042
Stores and other mercantile buildings	20.66	$50,338	$36,555	$40,746	$26,679	$41,720	$31,538
Other	52.98	$8,567	$7,542	$5,681	$5,661	$5,600	$7,953
Consumer price index (December 1977 = 100)							
North Central US[f]	3.58	182.6	182.4	180.8	180.4	—	176.1
North Central/population more than 1,200,000[f]	3.49	186.9	186.6	184.5	184.0	—	180.3
North Central/population 360,000 to 1,200,000[f]	3.50	180.2	180.2	179.5	179.5	—	174.1
North Central/population 50,000 to 360,000[f]	4.16	178.2	177.8	176.9	176.1	—	170.7
North Central/population less than 50,000[f]	2.80	176.7	176.1	174.9	174.6	—	171.3
Chicago (1967 = 100)	4.53	346.1	345.0	338.4	337.1	331.1	330.4
St. Louis (1967 = 100)	2.79	334.7	—	330.5	—	325.6	—
		1987:I	1986:IV	1986:III	1986:II	1986:I	1985:IV
Personal income (in millions)[b,c,h]	5.97	$184,404	$180,304	$179,096	$179,622	$174,013	$173,178
Per capita personal income[b,g,h]	5.35	$15,856	$15,527	$15,445	$15,029	$15,051	$15,001

[a]Represents absolute change (percent change not relevant). [b]Recent month is preliminary figure. [c]The Conference Board, *Help Wanted Advertising*, July 1987. [d]Latest month projected by BEBR. [e]Percentage of companies receiving slower deliveries. [f]Percent change between June 1986 and June 1987. [g]Seasonally adjusted at annual rates. [h]Percent change between 1986:I and 1987:I.

Chart 1. Composite Leading Indicator (average percent change in base indexes)

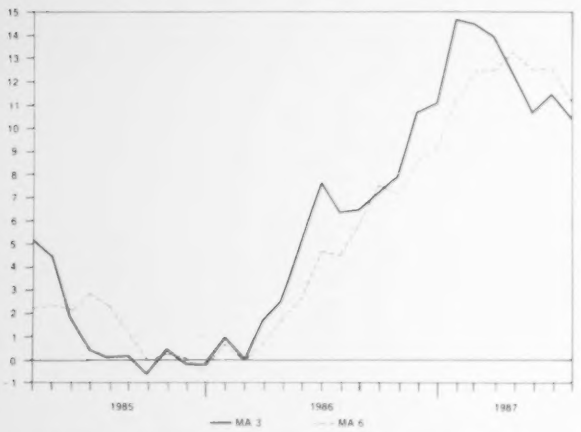


Chart 2. Year-to-Year Percent Change in Housing Permits

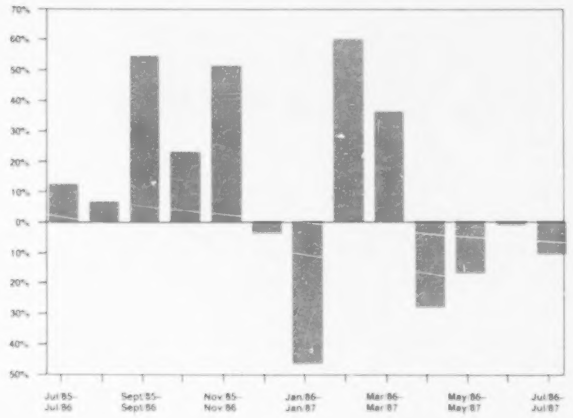
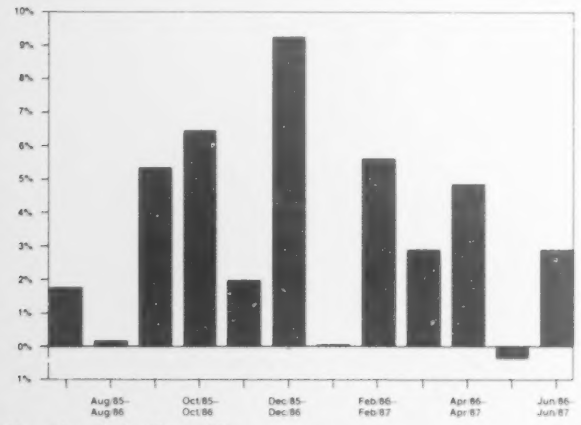


Chart 3. Year-to-Year Percent Change in Real Retail Sales*



*Nominal retail sales/Chicago CPI

Chart 4. Year-to-Year Changes in Coal and Petroleum Production

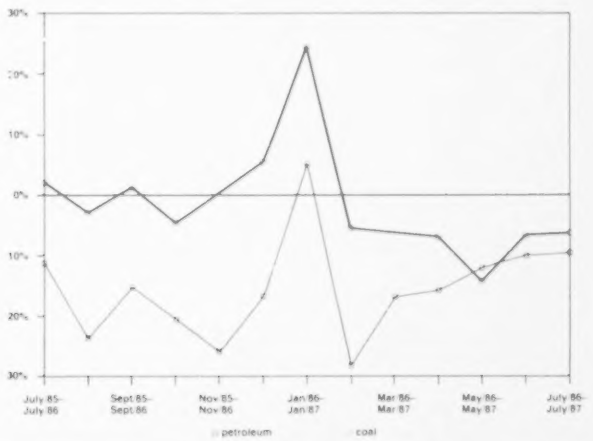


Chart 5. Year-to-Year Changes in Manufacturing Earnings and North Central CPI

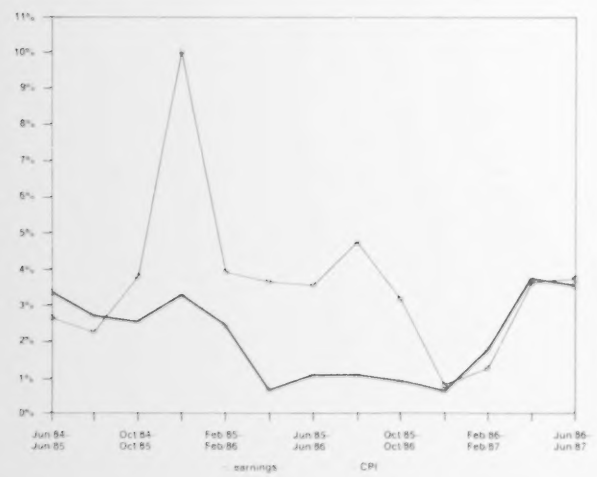
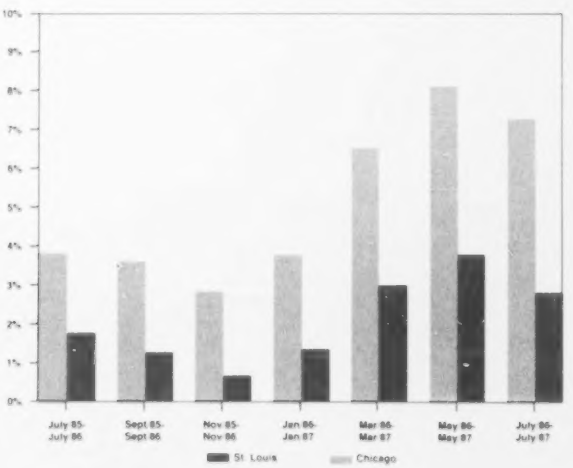


Chart 6. Year-to-Year Changes in St. Louis and Chicago CPI



Illinois Business Review

Second-class postage paid at Urbana, Illinois.

Bureau of Economic and Business Research
428 Commerce West, 1206 South Sixth Street
Champaign, Illinois 61820

CONGRESSIONAL INFO SERVICE, IN
SRI
4520 EAST - WEST HIGHWAY
BETHESDA MD 20814

Illinois Economic Outlook

Illinois Seasonally Adjusted Employment

	History				Forecast			
	86:III	86:IV	87:I	87:II	87:III	87:IV	88:I	88:II
Total private nonfarm (thousands)	4,109	4,116	4,055	4,123	4,129	4,135	4,138	4,142
Mining	25	25	24	24	24	23	23	22
Construction	179	182	183	175	172	169	167	165
Manufacturing	920	924	928	925	915	908	898	891
Durable manufacturing	563	563	564	561	551	544	535	528
Primary metals	55	55	55	55	54	54	53	53
Fabricated metals	111	111	111	111	109	108	107	105
Nonelectrical machinery	137	137	138	138	135	132	129	128
Electrical equipment	118	118	118	118	115	112	109	107
Miscellaneous durables	143	142	142	139	138	138	136	135
Nondurable manufacturing	357	355	364	364	364	364	363	363
Food products	89	90	92	92	92	91	91	90
Printing and publishing	105	105	107	107	107	107	106	107
Chemicals	56	56	57	57	58	58	58	59
Miscellaneous nondurables	107	108	109	109	108	108	108	107
Utilities and transportation	278	278	280	283	279	277	274	272
Wholesale and retail trade	1,182	1,197	1,210	1,220	1,230	1,237	1,243	1,247
Services	1,133	1,137	1,138	1,145	1,153	1,162	1,171	1,180
Finance, insurance, and real estate	348	350	351	352	355	359	362	366

Bureau of Economic and Business Research

The Illinois Econometric Model predicts modest growth in employment in the state over the forecast period. During 1987 the most rapid growth is expected to occur in the wholesale and retail trades (3.08 percent), followed by services (1.55 percent) and the financial sector (1.53 percent). The state's manufacturing employment is expected to show a slight overall decline (–0.12 percent) with a fall in durable goods jobs balanced by an increase in employment in nondurable goods. Quarterly changes in employment for the largest sectors of the Illinois economy are illustrated by the accompanying graph. The trend toward a shrinking manufacturing sector is evident, with negative growth predicted throughout the forecast period. At the same time, continued increases in the remaining sectors are expected to result in job growth in the total economy.

Illinois Employment (percentage change from previous quarter)